

State of Washington REPORT OF EXAMINATION FOR WATER RIGHT APPLICATION

PRIORITY DATE 2/26/2008

WATER RIGHT NUMBER S2-30456

MAILING ADDRESS
MICHAEL AND MARY ADAMS
PO BOX 65223
PORT LUDLOW WA 98365

site Address (if Different) 124 Hood Head Port Ludlow WA

Quantity Authorized for Withdrawal or Diversion

WITHDRAWAL OR DIVERSION RATE Rainwater collection

UNITS

ANNUAL QUANTITY (AF/YR)

0.1

Purpose				
	WITHDRAWAL OR DIVERSION RATE	ANNUAL QUANTITY (AF/YR)		
	NON-		PERIOD OF USE	
PURPOSE	ADDITIVE ADDITIVE UNITS	ADDITIVE NON-ADDITIVE	(mm/dd)	
Single domestic supply	Not applicable	0.1	01/01 - 12/31	

REMARKS

Rooftop rainwater collection

Source Location								
COUNTY	WATERBODY RAINWATER		TRIBUTARY TO			WATER RESOURCE INVENTORY AREA		
JEFFERSON			HOOD	CANAL		17-QUILCENE-SNOW		
SOURCE FACILITY/DEVICE	PARCEL	TWP	RNG	SEC	QQ Q	LATITUDE	LONGITUDE	
Rainwater	994000068	28N	01E	25	SW	47.887413 Datum: NAD	-122.622681 83/WGS84	

Place of Use (See Attached Map)

PARCELS (NOT LISTED FOR SERVICE AREAS) 994000068

LEGAL DESCRIPTION OF AUTHORIZED PLACE OF USE

Lot 124, Seven Sisters Beach, as per plat recorded in Volume 3 of Plats, Page 23, Records of Jefferson County, Washington.

Proposed Works

1,250 square feet of rooftop rainwater catchment surface leading to eight 1,550-gallon storage tanks and a 1/2 horsepower pump conveying water uphill to an additional 1,550-gallon tank for gravity feed to home.

Development Schedule

BEGIN PROJECT

COMPLETE PROJECT

PUT WATER TO FULL USE

Started

Completed

In Full Use

Measurement of Water Use

How often must water use be measured?

Metering not required

Provisions

The annual quantity on this permit is not intended to limit the amount of rainwater collected and used by the water right holder for this project. Additional quantities may be developed subject to compliance with all federal, state and local requirements.

Proof of Appropriation

The water right holder shall file the notice of Proof of Appropriation of water (under which the certificate of water right is issued) when the permanent distribution system has been constructed and the quantity of water required by the project has been put to full beneficial use.

Schedule and Inspections

Department of Ecology personnel, upon presentation of proper credentials, shall have access at reasonable times, to the project location, and to inspect at reasonable times, records of water use, wells, diversions, measuring devices and associated distribution systems for compliance with water law.

Findings of Facts

Upon reviewing the investigator's report, I find all facts, relevant and material to the subject application, have been thoroughly investigated. Furthermore, I concur with the investigator that water is available from the source in question; that there will be no impairment of existing rights; that the purpose(s) of use are beneficial; and that there will be no detriment to the public interest.

Therefore, I ORDER approval of Application No. S2-30456, subject to existing rights and the provisions specified above.

YOUR RIGHT TO APPEAL

You have a right to appeal this decision to the Pollution Control Hearing Board (PCHB) within 30 days of the date of receipt of this decision. The appeal process is governed by Chapter 43.21B RCW and Chapter 371-08 WAC. "Date of receipt" is defined in RCW 43.21B.001(2).

To appeal you must do the following within 30 days of the date of receipt of this decision:

- File your appeal and a copy of this decision with the PCHB (see addresses below). Filing means actual receipt by the PCHB during regular business hours.
- Serve a copy of your appeal and this decision on Ecology in paper form by mail or in person. (See addresses below.) E-mail is not accepted.

You must also comply with other applicable requirements in Chapter 43.21B RCW and Chapter 371-08 WAC.

ADDRESS AND LOCATION INFORMATION

Street Addresses	Mailing Addresses
Department of Ecology Attn: Appeals Processing Desk 300 Desmond Drive SE Lacey, WA 98503	Department of Ecology Attn: Appeals Processing Desk PO Box 47608 Olympia, WA 98504-7608
Pollution Control Hearings Board 1111 Israel RD SW STE 301 Tumwater, WA 98501	Pollution Control Hearings Board PO Box 40903 Olympia, WA 98504-0903

For additional information visit the Environmental Hearings Office Website: http://www.eho.wa.gov. To find laws and agency rules visit the Washington State Legislature Website: http://www1.leg.wa.gov/CodeReviser.

Signed at Olympia, Washington, this $12^{\frac{1}{2}}$ day of $\sqrt{12}$ 2012.

Michael J. Gallagher, Section Manage

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INVESTIGATOR'S REPORT Application for Water Right -- Adams Water Right Control Number S2-30456 Marie Peter, Department of Ecology

BACKGROUND

On February 26, 2008, Michael and Mary Adams filed an application for a permit to harvest rainwater for single domestic supply.

The rainwater collection site and place of use are located on Hood Head in Jefferson County within Water Resources Inventory Area 17 (WRIA 17). Hood Head is a small island connected to the mainland by a narrow spit. It is situated about 1.5 miles north of the Hood Canal Floating Bridge, approximately four miles southeast of the town of Port Ludlow.

Attributes of Proposal

Table 1 Application Summary

Name	Michael and Mary Adams			
Priority Date	February 26, 2008			
Instantaneous Rate	Variable rate dependent on precipitation			
Annual Quantity	0.1 acre-feet per year Single domestic supply			
Purpose of Use				
Period of Use	Year-round, as needed			
Place of Use	Lot 124, Seven Sisters Beach, as per plat recorded in Volume 3 of Plats, Page 23, Records of Jefferson County, Washington.			

Table 2 Proposed Sources of Withdrawal or Diversion

Source Name	Parcel	Twp	Rng	Sec	QQ Q	Latitude	Longitude
Rainwater	994000068	28N	01E	25	SW 1/4	47.887413	-122.622681

Legal Requirements for Approval of Appropriation of Water

RCW 90.03 authorizes the appropriation of public water for beneficial use and describes the process for

obtaining water rights. Laws governing the surface water right permitting process are contained in RCW 90.03.250 through 90.03.340. In accordance with RCW 90.03.290, determinations must be made on the following four criteria in order for an application for water rights to be approved:

- Water must be available
- There must be no impairment of existing rights
- The water use must be beneficial
- The water use must not be detrimental to the public interest

Rainwater collection

Department of Ecology Water Resources Program Policy No. 1017 allows Washington residents to collect and store rainwater from a rooftop collection system for on-site use without obtaining a water right permit. However, Ecology may regulate the storage and use of such systems if it determines that the cumulative impacts of such systems are likely to adversely affect in-stream values or impair existing water right holders.

To qualify as a rooftop collection system, the structure must be part of a fixed above-ground structure with a primary purpose other than rainwater collection. The collection system under this application is built onto the rooftop of a single-family residence and meets this definition. Thus, a state-issued water right permit is not needed. However, the applicants have requested a water right.

Public Notice

RCW 90.03.280 requires that notice of a water right application be published once a week, for two consecutive weeks, in a newspaper of general circulation in the county or counties where the water is to be stored, diverted and used. Notice of this application was published in the *Port Townsend & Jefferson County Leader* during the weeks of August 3 and 10, 2011. No protests or letters of concern were received in response to this notice.

This report serves as the written findings of fact concerning all things investigated regarding Water Right Application Number S2-30456.

State Environmental Policy Act (SEPA)

A water right application is subject to a SEPA threshold determination (i.e., an evaluation whether there are likely to be significant adverse environmental impacts) if any one of the following conditions is met.

- (a) It is a surface water right application for more than 1 cubic feet per second, unless that project is for agricultural irrigation, in which case the threshold is increased to 50 cubic feet per second, so long as that irrigation project will not receive public subsidies;
- (b) It is a groundwater right application for more than 2,250 gallons per minute;
- (c) It is an application that, in combination with other water right applications for the same project, collectively exceed the amounts above;
- (d) It is a part of a larger proposal that is subject to SEPA for other reasons (e.g., the need to obtain other permits that are not exempt from SEPA);
- (e) It is part of a series of exempt actions that, together, trigger the need to do a threshold determination, as defined under WAC 197-11-305.

Because this application does not meet any of these conditions, it is categorically exempt from SEPA and a threshold determination is not required.

INVESTIGATION

Review

My evaluation of this application included review of the following:

- Telephone communications with Michael Adams.
- Applicable laws and regulations including WAC 173-517, *Quilcene-Snow Instream Resources Protection and Watershed Management Program* (the WRIA 17 Rule).
- Department of Ecology Water Resources Policy 1017.
- Jefferson County Health and Human Services Environmental Health Division Drinking Water Program Policy Statement No. 97-01: Rainwater Collections.
- Department of Ecology Rainwater Harvesting Calculator.

Proposed Use and Water Demand

The Adams home is located on Lot 124 of the 129-lot Seven Sisters Beach Subdivision which occupies most of Hood Head. Numerous small and narrow waterfront lots surround 15 larger upland lots. The subdivision is predominantly wooded and developed with small homes and vacation cabins.

The place of use under this application is a four-acre upland lot located near the northwestern corner of Hood Head. The lot slopes to the west and drains to Bywater Bay on Hood Canal.

A rooftop rainwater collection system currently supplies an existing residence at this site. The home is occupied on a full-time basis. The applicants use an average of only 20 to 25 gallons per day to meet all of their household needs, including wash water for a small shellfish business. No water is being used or intended for irrigation. Thus, demand is fairly constant throughout the year.

The collection system consists of a 1,250 square-foot catchment area on the roof of the house. After collection, rainwater passes through a 5-micron filter and is stored in eight 1,550-gallon above-ground UV-stabilized polyethylene tanks. A ½ horsepower pump conveys water uphill to an additional 1,550-gallon tank which gravity-feeds to the home on demand.

According to calculations using the Department of Ecology's "Rainwater Harvesting Calculator", the installed square-footage of catchment area and storage capacity is likely able to supply the residence with an average of about 50 gallons per day. However, actual supply will vary seasonally and from year to year, depending on precipitation rates and patterns.

Other Rights Appurtenant to the Place of Use

No other water rights are appurtenant to the proposed place of use. The applicants do not have a well or other alternative water source and rely solely on rainwater.

Water Availability

For water to be available for appropriation, it must be both physically and legally available.

Hood Head receives approximately 30 inches of precipitation per year on average. The applicants report receiving up to 35 inches in recent years. Water is physically available for collection in the amount requested.

Impairment Considerations

The collection site is located within 500 feet of Bywater Bay. There are no nearby streams. Rainwater that is not captured by the catchment system or assimilated by on-site vegetation discharges almost directly to saltwater as surface or shallow sub-surface runoff.

The Department of Ecology's Well Log Database indicates that very few wells have been developed on Hood Head. Rainwater catchment will not reduce the groundwater supply or degrade groundwater quality. In fact, the alternative use of rainwater catchment systems has allowed seawater intruded wells in northeastern Jefferson County wells to recover. Thus, the use of rainwater, either as a primary source or to supplement well withdrawals, should be encouraged in coastal areas such as Hood Head where groundwater pumping may lead to seawater intrusion.

Beneficial Use

The use of water for domestic supply is a beneficial use.

Public Interest Considerations

The Quilcene-Snow Watershed Management Plan (WRIA 17 Rule) was adopted in November, 2009. According to the rule, Hood Head is located in a "Coastal Management Area". New appropriations may be approved in these areas under certain conditions. The proposed rainwater catchment will not affect regulated surface waters or small independent streams. Approval of this application is consistent with the WRIA 17 Rule.

Hood Head is within the Jefferson County Coastal Seawater Intrusion Protection Zone (SIPZ) and must comply with development requirements for the Coastal SIPZ. There is no public water system available for hook-ups at this site. Thus, a private well or other qualifying alternative water source such as a rainwater catchment system may be developed. Although it is possible to drill a well, the applicants have opted not to drill because all domestic needs have been adequately met year-round through rainwater catchment.

Jefferson County Health and Human Services Environmental Health Division Drinking Water Program Policy Statement No. 97-01 states that rainwater collection systems will be accepted as proof of potable water supply provided that specific requirements are met. Although the subject rainwater system appears to be capable of supplying twice the amount of water needed by the applicants, the estimated 50-gallon per day capacity is considerably less than the 90 gallons per day (0.1 acre-foot per year) recommended by Jefferson County for a home with two occupants. The rainwater system has not received county approval to date.

I recommend that a permit be issued for 0.1 acre-feet per year. This quantity will allow modifications to the system enabling additional catchment and/or storage to increase source reliability or to obtain county approval. The recommended annual quantity under this permit is not intended to limit the amount of rainwater that can otherwise be collected without a water right permit in accordance with Department of Ecology Policy 1017.

Conclusions

I find that:

- Water is available in the quantity requested.
- The proposed use of water for domestic supply is a beneficial use.
- The proposed appropriation will not impair existing rights.
- The proposed appropriation will not be detrimental to the public welfare.

RECOMMENDATIONS

Based on the above investigation and conclusions, I recommend that this request for a water right be approved in the amounts and within the limitations listed below and subject to the provisions listed above.

Purpose of Use and Authorized Quantities

The amount of water recommended is a maximum limit and the water user may only use that amount of water within the specified limit that is reasonable and beneficial:

- > Unlimited rate of rainwater catchment
- > 0.1 acre-feet per year
- Single domestic supply
- Point of diversion: SW ¼, Section 25, Township 28 North, Range 1 E.W.M.
- Place of use: As described on Page 1 of this Report of Examination



Report Writer

Date

If you need this publication in an alternate format, please call Water Resources Program at (360) 407-6600. Persons with hearing loss can call 711 for Washington Relay Service. Persons with a speech disability can call 877-833-6341.

